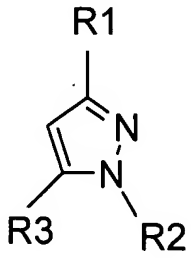
Clean Version of Amended Claims

The following amendments are made with respect to the claims in the International Application PCT/EP2003/007066.

This listing of claims will replace all prior versions and listings of claims in this application.

1 (Currently amended). A compound according to formula (1), or pharmaceutical acceptable salts or solvates thereof,

formula (1)



wherein:

R_1 is phenyl, substituted phenyl, C_5 to C_6 heteroaryl, C_5 to C_6 substituted heteroaryl, napthyl or substituted napthyl,

R_2 is H, C_1 to C_8 alkyl, C_1 to C_7 acyl, C_1 to C_7 substituted acyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl, C_7 to C_{12} substituted phenylalkyl, C_3 to C_8 cycloalkyl, C_3 to C_8 substituted cycloalkyl, C_5 to C_6 heteroaryl, or [C_5 to C_6]-heteroaryl-(C_1 to C_6)-alkyl, and

R_3 is H, C_1 to C_8 alkyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl, C_7 to C_{12} substituted phenylalkyl, halogen, C_1 to C_8 alkoxy, furanyl, substituted furanyl, thiazyl, substituted thiazyl, carboxy, ester, amide or C_1 to C_8 aminoacyl.

2 (Currently amended). The compound according to claim 1, or pharmaceutical

acceptable salts or solvates thereof, wherein:

R_1 is phenyl, substituted phenyl, C_5 to C_6 heteroaryl, or C_5 to C_6 substituted heteroaryl,

R_2 is H, CH_3, substituted alkyl or substituted phenyl, and

R_3 is substituted phenyl, C_5 to C_6 heteroaryl or C_5 to C_6 substituted heteroaryl.

3 (Currently amended). The compound according to claim 1, or pharmaceutical acceptable salts or solvates thereof, wherein:

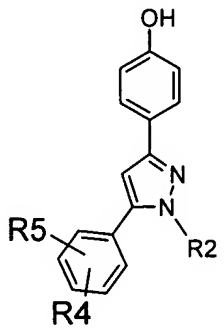
R_1 is substituted phenyl,

R_2 is CH_3 or substituted alkyl, and

R_3 is substituted phenyl or substituted C_5 heteroaryl.

4 (Currently amended). The compound according to claim 1, having the following formula (2)

formula (2)



wherein:

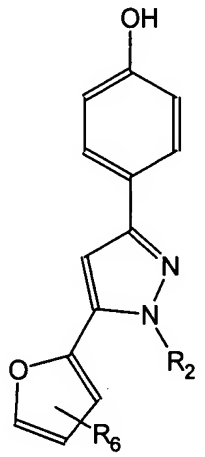
R_2 is H, C_1 to C_8 alkyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl or C_7 to C_{12} substituted phenylalkyl,

R_4 is H, C_1 to C_8 alkyl, halogen, C_1 to C_8 alkoxy, carboxy, ester, amide or C_1 to C_8 aminoacyl, and

R_5 is H, C_1 to C_8 alkyl, halogen, C_1 to C_8 alkoxy, carboxy, ester, amide or C_1 to C_8 aminoacyl.

5 (Currently amended). The compound according to claim 1 having the following formula (3)

formula (3)



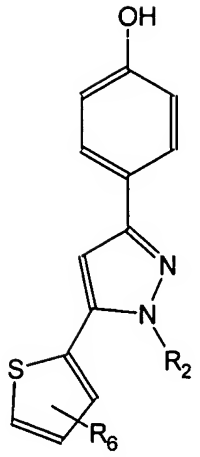
wherein:

R_2 is H, C_1 to C_7 acyl, C_1 to C_7 substituted acyl, phenyl, substituted phenyl, C_5 to C_6 heteroaryl, C_5 to C_6 substituted heteroaryl, napthyl or substituted napthyl,

R_6 is H, C_1 to C_8 alkyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl, C_7 to C_{12} substituted phenylalkyl, carboxy, ester, amide C_1 to C_8 aminoacyl, or C_1 to C_8 alkoxy.

6 (Currently amended). The compound according to claim 1 having the following formula (4)

formula (4)



wherein:

R_2 is H, C_1 to C_7 acyl, C_1 to C_7 substituted acyl, phenyl, substituted phenyl, C_5 to C_6 heteroaryl, C_5 to C_6 substituted heteroaryl, napthyl or substituted napthyl,

R_6 is H, C_1 to C_8 alkyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl, C_7 to C_{12} substituted phenylalkyl, carboxy, ester, amide, C_1 to C_8 aminoacyl, or C_1 to C_8 alkoxy.

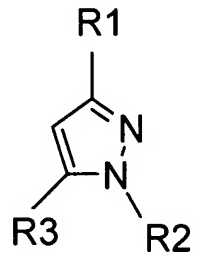
7 (Currently amended). The compound according to claim 1 wherein said compound is capable of binding the NR3B1 receptor protein or a portion thereof according to SEQ ID NO. 3 or a mammalian homologue thereof.

8 (Currently amended). The compound according to claim 1 wherein said compound is capable of modulating the activity of the NR3B1 receptor protein comprising antagonistic or agonistic effects.

9 (Currently amended). A method for prevention or treatment of a NR3B1 receptor protein or NR3B1 receptor protein homologue mediated disease or condition in a mammal comprising

administration of a therapeutically effective amount of a compound according to formula (1), or pharmaceutical acceptable salts or solvates thereof,

formula (1)



wherein:

R_1 is phenyl, substituted phenyl, C_5 to C_6 heteroaryl, C_5 to C_6 substituted heteroaryl, napthyl or substituted napthyl,

R_2 is H, C_1 to C_8 alkyl, C_1 to C_7 acyl, [[or]] C_1 to C_7 substituted acyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl, [[or]] C_7 to C_{12} substituted phenylalkyl, C_3 to C_8 cycloalkyl, C_3 to C_8 substituted cycloalkyl,[[,]] C_5 to C_6 heteroaryl, or [C_5 to C_6]-heteroaryl-(C_1 to C_6)-alkyl, and

R_3 is H, C_1 to C_8 alkyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl, C_7 to C_{12} substituted phenylalkyl, halogen, C_1 to C_8 alkoxy, furanyl, substituted furanyl, thiazyl, substituted thiazyl, carboxy, ester, amide or C_1 to C_8 aminoacyl

wherein the prevention or treatment is directly or indirectly accomplished through the binding of said compound to the NR3B1 receptor protein or to the NR3B1 receptor protein homologue.

10 (Currently amended). The method for prevention or treatment of a NR3B1 receptor protein mediated disease or condition according to claim 9 wherein the mammal is a human.

11 (Currently amended). A method for

i. regulating physiologies that are influenced by estrogenic response pathways in a mammal comprising modulating the activity of the NR3B1 receptor;

ii. treating in a mammal a disease which is directly or indirectly affected by estrogen levels;

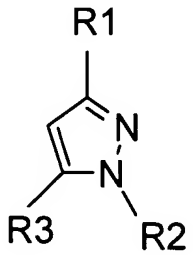
iii. treating cancer, osteoporosis, obesity, lipid disorders or a cardiovascular disorder or influencing fertility and reproductive health in a mammal;

and/or

iv. modulating the expression of a gene directly or indirectly controlled by NR3B1 in tissues of a mammal;

wherein said method comprises administering to a mammal in need of such regulation, treatment and/or modulation an effective amount of a compound according to formula (1), or pharmaceutical acceptable salts or solvates thereof,

formula (1)



wherein:

R_1 is phenyl, substituted phenyl, C_5 to C_6 heteroaryl, C_5 to C_6 substituted heteroaryl, napthyl or substituted napthyl,

R_2 is H, C_1 to C_8 alkyl, C_1 to C_7 acyl, C_1 to C_7 substituted acyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl, C_7 to C_{12} substituted phenylalkyl, C_3 to C_8 cycloalkyl, C_3 to C_8 substituted cycloalkyl, C_5 to C_6 heteroaryl, or [C_5 to C_6]-heteroaryl-(C_1 to C_6)-alkyl, and

R_3 is H, C_1 to C_8 alkyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl, C_7 to C_{12} substituted phenylalkyl, halogen, C_1 to C_8 alkoxy, furanyl, substituted furanyl, thiazyl, substituted thiazyl, carboxy, ester, amide or C_1 to C_8 aminoacyl.

12 – 14 (Cancelled).

15 (Currently amended). The method of claim 11, wherein said mammal is a human.

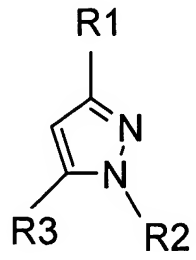
16 (Currently amended). The method according to claim 15 for treating cancer, osteoporosis, lipid disorders or a cardiovascular disorder in humans or influencing fertility and reproductive health.

17 (Currently amended). The method according to claim 11 wherein the expression of genes comprising aromatase, MCAD, thyroid receptor alpha, osteopontin, PS2, lactoferrin is modulated.

18-26 (Cancelled).

27 (New claim). A pharmaceutical composition comprising a compound according to formula (1), or pharmaceutical acceptable salts or solvates thereof,

formula (1)



wherein:

R_1 is phenyl, substituted phenyl, C_5 to C_6 heteroaryl, C_5 to C_6 substituted heteroaryl, napthyl or substituted napthyl,

R_2 is H, C_1 to C_8 alkyl, C_1 to C_7 acyl, C_1 to C_7 substituted acyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl, C_7 to C_{12} substituted phenylalkyl, C_3 to C_8 cycloalkyl, C_3 to C_8 substituted cycloalkyl, C_5 to C_6 heteroaryl, or [C_5 to C_6]-heteroaryl-(C_1 to C_6)-alkyl, and

R_3 is H, C_1 to C_8 alkyl, C_1 to C_8 substituted alkyl, C_7 to C_{12} alkylphenyl, C_7 to C_{12} substituted phenylalkyl, halogen, C_1 to C_8 alkoxy, furanyl, substituted furanyl, thiazyl, substituted thiazyl, carboxy, ester, amide or C_1 to C_8 aminoacyl;

together with a pharmaceutical carrier.